

A CAMPUS PLAN AND DORMITORY COMPLEX

FOR THE NEW HAMPTON SCHOOL

by

PETER W. THOMAS

Submitted in Partial Fulfillment

of the Requirements for the

Degree of Bachelor of Architecture

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June, 1965

Signature of Author

.....  
Department of Architecture, April 5, 1965

Certified by

.....  
Thesis Supervisor

Accepted by

.....  
Chairman, Departmental Committee on Theses

351 Beacon Street  
Boston, Mass.

Pietro Belluschi, Dean  
School of Architecture and Planning  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Sir,

In partial fulfillment of the requirements for the degree of Bachelor of Architecture, I respectfully submit this thesis entitled, "A Campus Plan and Dormitory Complex for The New Hampton School."

Sincerely yours, /

Peter W. Thomas.

## Table of Contents

Acknowledgement	i
Abstract	ii
History	1
Background	3
The Program	9
The Problems	14
Bibliography	16
Appendix	17

### Acknowledgement

My thanks to The New Hampton School and Mr. T.  
Holmes Moore, Headmaster, for the help and information  
that they have supplied.

## **Abstract**

The New Hampton School is a small independent secondary boy's boarding school. It is located in central New Hampshire about 110 miles north of Boston. This thesis has two parts. First, it presents a campus for the expansion of the school. Second, it will present architectural design for the dormitories of this expansion.

HISTORY

## History

The school was founded in 1821 as New Hampton Academy. It was a coeducational school under the sponsorship of the Baptist and Freewill Baptist churches from 1826 to 1915, when it passed into the hands of its alumni. It is now governed by a Board of Trustees elected by the alumni. In 1926 the school was re-organized for boys only.

I attended the school from September 1956 to June 1960. When I graduated there were 210 students in the school. At present there are 242 students. The increase was through the conversion of two houses into dormitories for twelve and fifteen boys.

The administration of the school has decided that the school can best meet competition from public schools and rising costs, by increasing the size of the school to about 450 students. This, they feel, can be done with comparatively less increase in administration, athletic and common facilities; thus enabling them to lower the cost per student. The limit of 450 students was thought to be the limit of coherence within the student body.

Toward this goal the school has added two facilities since I graduated. First an athletic building with ample gymnasium facilities for a school of 450 students. Second a dining hall to seat 600 people. A year and a half ago I visited the school to see the new buildings. While these new buildings do provide the much needed facilities, I was

appalled by both the ugliness of the buildings and the seeming lack of thought in their placement.

In talks with the headmaster of the school this past fall, I learned that there was no general campus plan for this expansion. It would just take place bit by bit as money became available. This thesis will provide a master plan for the campus expansion and specific design for a dormitory complex.



**BACKGROUND**

## Background

### Administrative Structure

The administrative burdens of the school have increased greatly during the last few years. Five years ago the school in addition to the headmaster, had just a Dean and a Director of Athletics. Since then appointments of, a Director of Admissions, a Director of Counseling, a Director of Studies, a Business Manager, and Department Heads for each of the academic departments; have been made. In addition there is now a Coordinator of Alumni and Public Relations. Chart 1. shows the Administrative Structure of the school.

Now that these new areas of administration have been established, they can function quite efficiently with little extra effort, for many more students. This is one of the school's reasons for increasing its size from 250 to 450.

### Students

The students, for the most part, come from the Northeastern United States, with Massachusetts, New York, New Jersey and New Hampshire the largest contributors. Typically there are students from about 30 states and 10 countries in attendance. There are virtually no day students. Between one sixth and one fifth of the students receive scholarship help averaging \$975 per year. The students typical daily schedule appears on the next page.

Rising bell	6:40
Breakfast	7:00
Assembly	7:45
Class periods 1, 2, 3	8:00 to 10:40
Mail period	10:40
Class periods 4,5	11:00 to 12:50
Lunch	12:50
Conference, Study and Laboratory period	1:40 to 2:30
Athletic period	3:00 to 5:30
Dinner	6:00
Extracurricular Activity period	6:30 to 7:45
Supplementary Study	6:45 to 7:45
Evening Study	7:50 to 9:50
Lights Out	10:00

## Faculty

The faculty of the school consists of thirty full time and three half time instructors. The ratio of students to teachers is one that the school does not want to increase in its expansion program. While increasing enrollment, there is little difficulty in maintaining the high admission standards for students. The situation is similar to college, where there are many more qualified applicants than there are spaces available. The problem of increasing the faculty, while maintaining its high standards, is much more difficult. To attract and retain the best teachers, the average cash salary has risen 60% in the last five years to almost \$6000. In addition to this the school supplies room and board to the instructor and all of his family. Coaching and teaching duties, during an eight week summer session, provide a convenient opportunity for additional income.

22 faculty families live in the dormitories. 11 faculty families live in houses near or on the campus. These houses are either bought by the school or the instructor is granted an additional living allowance. All instructors have dormitory duty, but a proctor system is used to give the instructor as much time as possible for class preparation and conference with individual students.

## Budget

The growth and expansion program of the school is an expensive one. Increased faculty and staff salaries, increased scholarship, the advanced placement program, the counseling system, and the plant improvements are all increase expenses. The school, in part, is able to do this because of the summer use of the plant by the twelve-week series of Gordon Research Conferences and the eight-week summer session. This is extremely beneficial in that it keeps the plant producing and many of the faculty, staff and employees of the school busy. The Research Conferences are particularly valuable as they show a very large profit that can be put into plant expansion and also used to help the room, board and tuition expense, which none the less has grown to \$2600. The expansion program also depends heavily upon the gifts of alumni, parents and friends.

The Plant as it now exists

Dormitories

Berry Hall	52 boys	3 masters
	reception and lounge	
Randall Hall	58 boys	4 masters
	reception and lounge	
Draper Hall	38 boys	3 masters
	lounge and laundry	
Preston Hall	24 boys	2 masters
	lounge	
Lewis Hall	32 boys	3 masters
	lounge	
Caswell House	12 boys	2 masters
	lounge	
The Pillars	15 boys	2 masters
	lounge	
Infirmary	8 boys	2 masters
Total	242 boys	21 masters

## Classroom Buildings

Lane Hall	3 language labs	7 classrooms
Meservey Hall	5 science labs	8 classrooms
Pillars		5 classrooms
	8 laboratories	20 classrooms

## Library

45,000 volumes      new addition of a \$150,000 wing provides  
ample stack, reading and study space for  
"students, townspeople and sojourners"

## Administration

Berry Hall      All offices

## Common Facilities

Post Office      Center of campus during mail period

General Store      Townspeople also use this

Auditorium      In Meservey Hall it is inadequate

Dining Hall      In Memorial Hall it contains a student  
lounge, a faculty lounge, the kitchen  
and dining for 600

## Athletics

Smith Hall      gymnasium, auditorium, stage, stock room,  
locker room, visiting team dressing rooms,  
corrective gymnasium, shower baths, student  
lounge with small kitchen, athletic directors  
office, coaches and officials offices.

THE PROGRAM



## Program Outline

Administration	existing	
Library	existing	
Classrooms	9,250	sq. feet
Auditorium	5,700	sq. feet
Field House	29,000	sq. feet
Dormitories	61,000	sq. feet
Infirmary	4,000	sq. feet
Total	108,950	sq. feet
+ 20% for Gross	130,000	sq. feet

The school has a present enrollment of 242 students. To teach these students the school has thirty full time instructors and three half time instructors. The increase of 200 students should provide for increase of twenty-five full time faculty members.

#### Administration

The administration of the school is handled in Berry Hall. There will be a need for increased administration space, but this can be moved into the area in Berry Hall that was formally the school dining hall. This space has not found a use since the construction of the new dining hall and would be ideal for administration expansion.

#### Classrooms

The increase of about 200 students would be handled by one class or laboratory room for each ten students. These twenty rooms would break up into fifteen classrooms and five laboratories.

15 classrooms for 10-15 students @ 350 sq. feet  
total of 5250 sq. feet

5 laboratories for 10-15 students @ 800 sq. feet  
total of 4,000 sq. feet

entire total 9,250 sq. feet

## Auditorium

At present the school auditorium is in the basement of Meservey Hall. It could not be expanded to seat 500-600 people. The auditorium is used daily for morning assembly and every Saturday night, when a movie is shown.

, 500 seats	4,500 sq. feet
stage	600 sq. feet
ensulery spaces	600 sq. feet
total	5,700 sq. feet

## Field House

The school plans to add to its gymnasium facilities a fieldhouse that would include a swimming pool and squash courts. The field house will greatly help the spring sports program during the period when the snow and mud has not left the athletic fields. The swimming pool and squash courts will provide an opportunity for two organized sports for which there have been no facilities.

dirt cage area for track and

baseball practice	20,000 sq. feet
swimming pool	6,000 sq. feet
squash courts	3,000 sq. feet
total	29,000 sq. feet

### **Infirmary**

A new and modern infirmary would be desirable. It should include residence for a full time nurse.

4,000 sq. feet

### **Library**

The town has a library of 45,000 volumes that caters to the needs of the school. It has a very large private endowment and is self sufficient.

### **Dormitories**

New Hampton's present dormitories are either converted houses or double-loaded straight corridor buildings, with social functions on the first floor. The masters in the dorms usually live on the first floor, although there are suites on some second floors. The school is trying to place an increasing responsibility in the hands of proctors, especially in freshman and sophomore dorms where they can act as tutors. The corridor system does not blend well with this philosophy and has restricted the extent to which this system has been able to function. An arrangement where one proctor would be directly responsible for six to eight boys would be about right. A suite of single rooms surrounding a common space would work well. It would make it easy for the proctor to supervise and help the boys.

The scale of the present dormitories seems proper and I would not propose a change. The new buildings should house about 50 boys and two masters. There is a need to house 200 new students. Caswell House, The Pillars and the Infirmary should not remain dormitories as they are poorly suited to this function. They could be use by the school for instructors who do not live in the dormitories. This would add 40 more boys to the total need for housing in the new dormitories.

rooms for 240 students @ 130 each	30,400 sq. feet
service and bathroom space @ 40 each	9,600 sq. feet
common lounge and game space @ 50 each	12,000 sq. feet
suites for 10 masters @ 900 each	9,000 sq. feet
total	61,000 sq. feet

## THE PROBLEMS

### The Problems

One of the problems of the school as it now exists is its lack of focus. To me, this is one of the most important aspects of a campus,,especially one that offers no other place for the students to go. The lack of focus is primarily caused by the sprawl of the small campus. The distance from one end of the campus to the other end is seven-tenths of a mile.

The location of the two new buildings did nothing to improve the situation. The closest thing to a central campus focus occurs at the Post Office and general store, during mail period. All of the students gather here to get their mail and something to eat. It gives them a chance to talk to one another outside on the front campus. This grassed campus area, shaded by tall elms is quite beautiful. Yet, it lacks life most of the time because most of the activity takes place on the north edge of this space; not across and in the space.

The opportunity for increasing the life of this space and shaping it as a campus center seems apparent. It could be done by developing both sides of Main Street, which is no longer plagued by through traffic because a new route has been built north of the school. The developement of the south side of Main Street could be effected by siting two new dormitories with the enlarged Post Office and general store facilities along the south side of the street with

the existing library and Draper Hall.

The remaining problems facing the site plan are creating somewhere on the campus a more intimate scale of space than that of the front court; and finding a way to relate the front court with the two new buildings, thus giving the campus a coherence that it now misses greatly.



## Bibliography

1. Braidech, Frank W. A Campus Plan and Dormitory System for Gilmore Academy M. I. T. B. Arch. Thesis  
March 23, 1962
2. Bursh and Reid, High schools today and tomorrow,  
New York, Reinhold, 1957.
3. Dober, R. , Campus Planning, New York, Reinhold, 1963
4. Otto, Karl , School building examples and developments,  
Stuttugart, Verlagsantalt, 1961
5. "Bricks and Mortarboards", Educational Facilities Laboratories, Inc, 1964

## APPENDIX

## Climate

### Temperature

Highest ever recorded	104
Lowest ever recorded	-52
average temperature	45
normal winter low	5
average	15
high	25
normal summer low	58
average	68
high	78

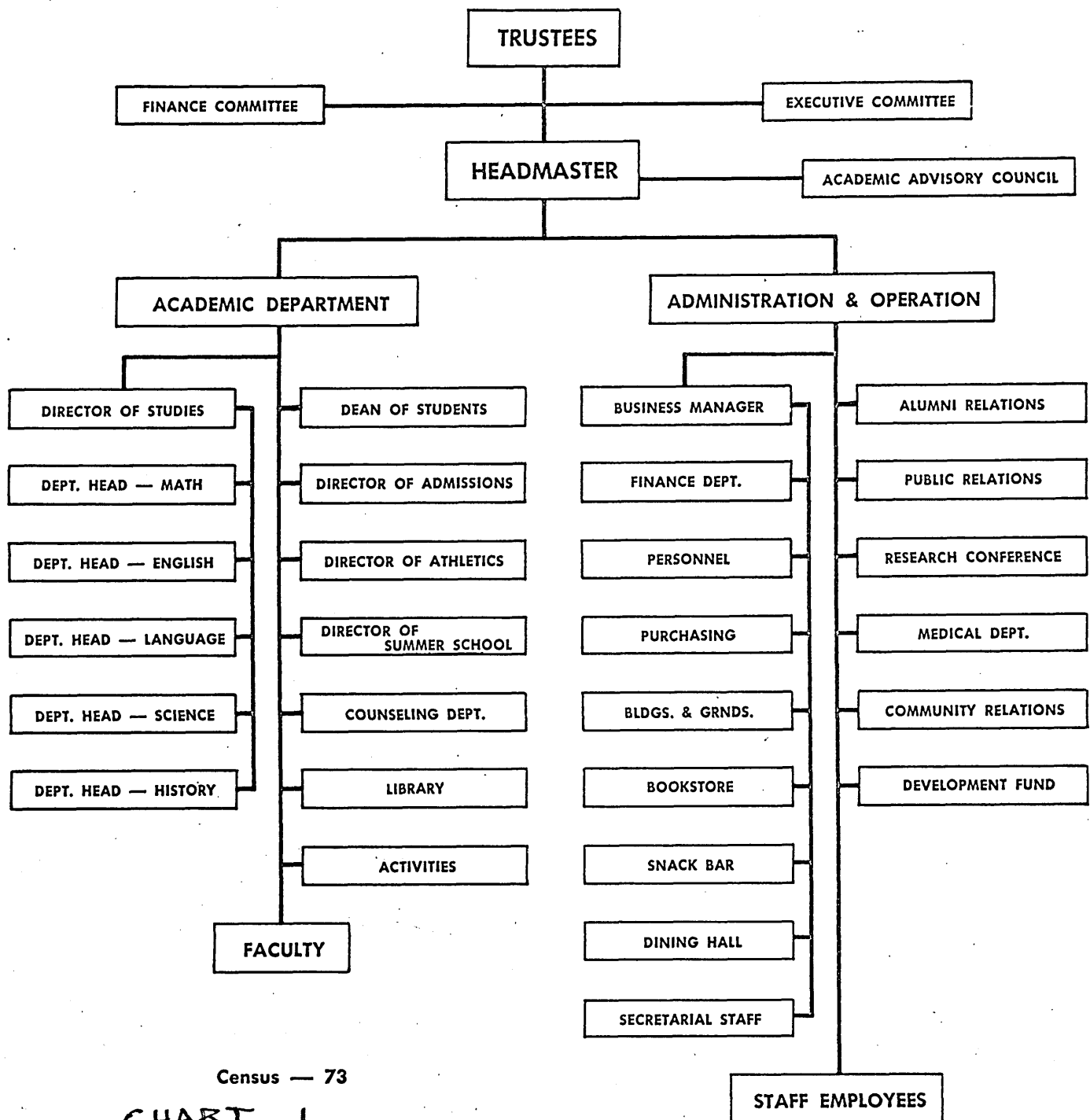
### Sunny days

About one third of the days are sunny, one third partly sunny and the remaining third cloudy.

### Precipitation

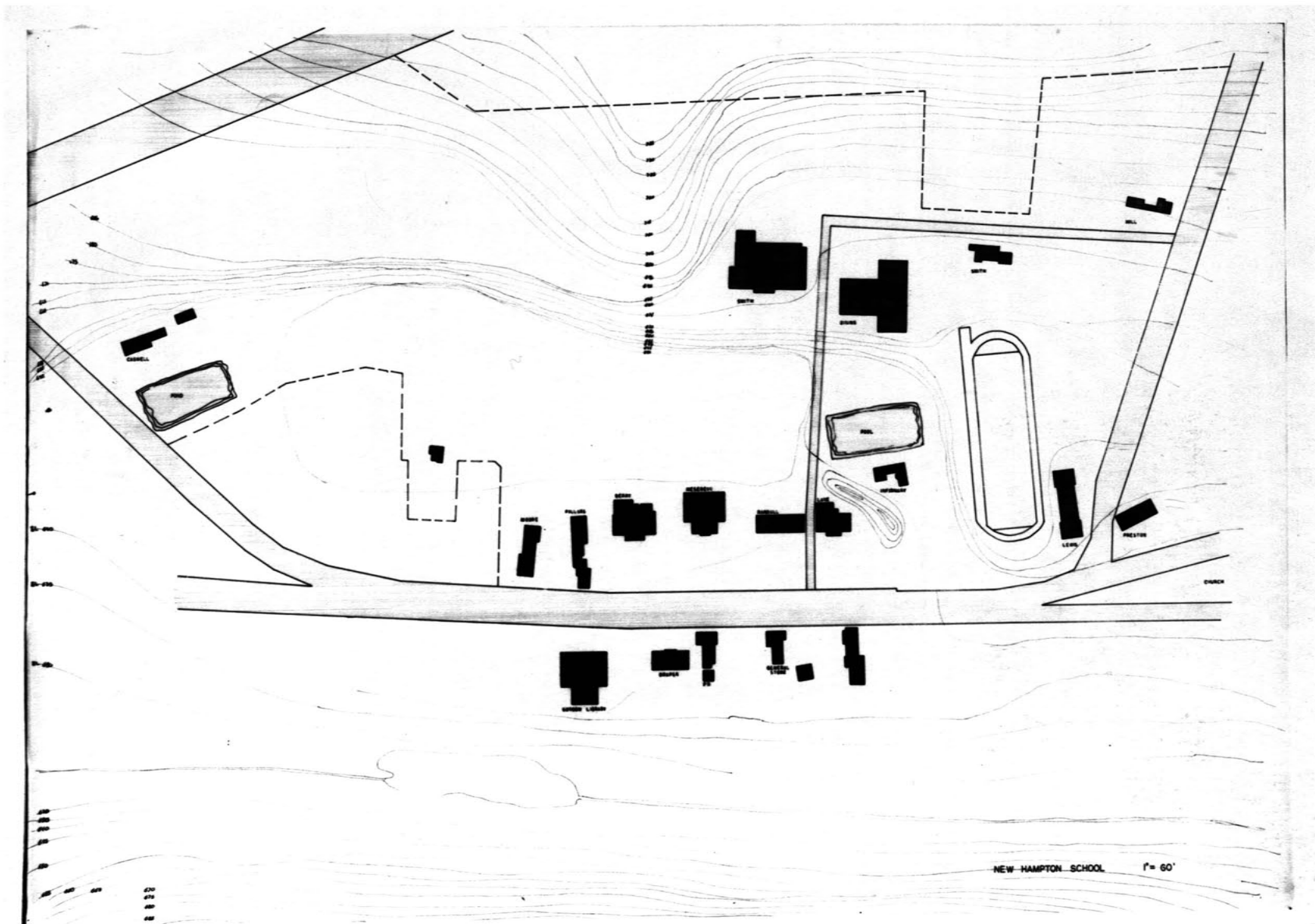
The average yearly rainfall is 40". There is no wet season as there is less than one inch difference between the wettest and driest months.

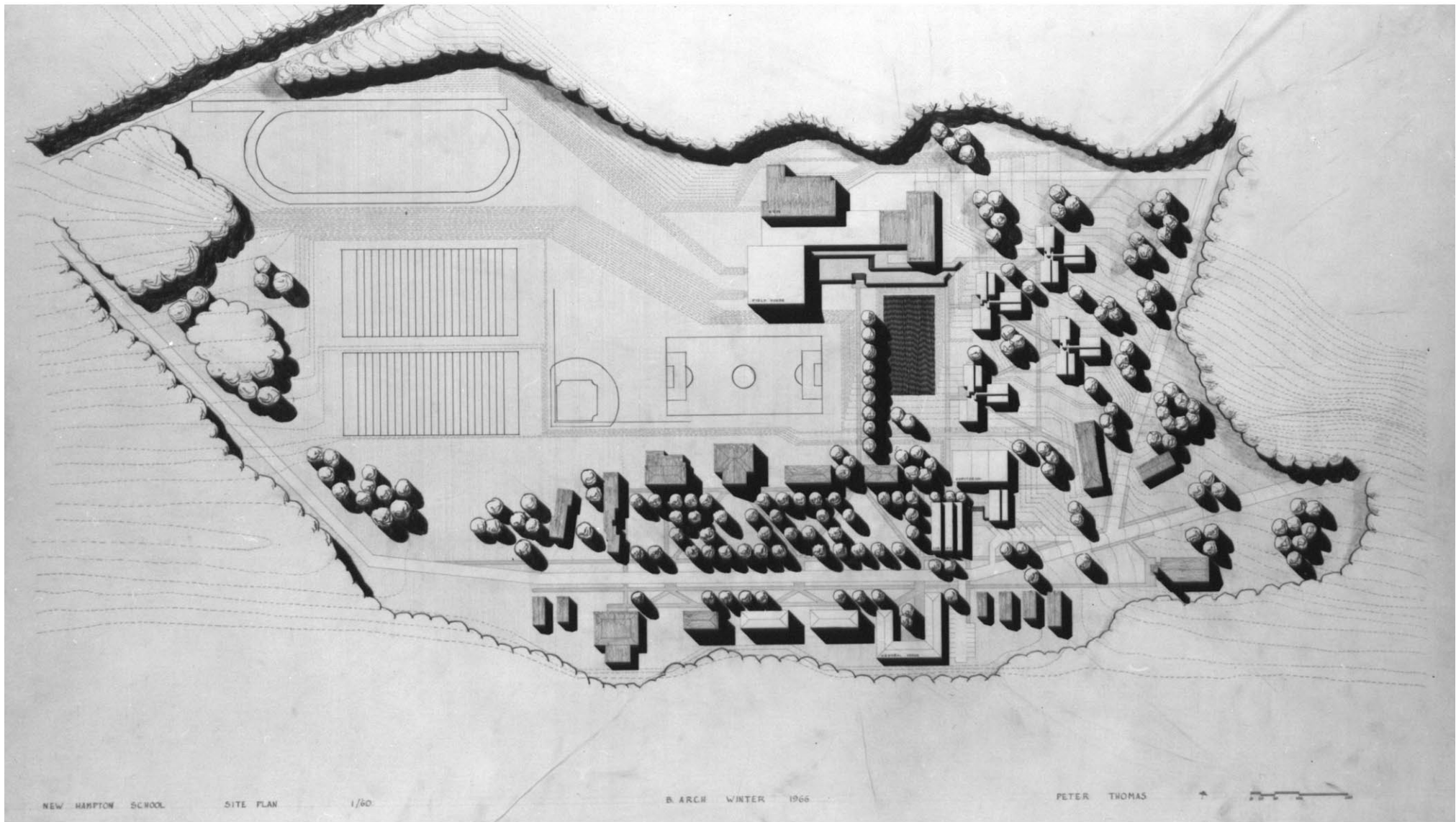
The principal climatic problem is the melting of the snow and ground frost in the spring. There is a period of about three weeks that the ground is to soft to walk on.



Census — 73

CHART 1.





NEW HAMPTON SCHOOL

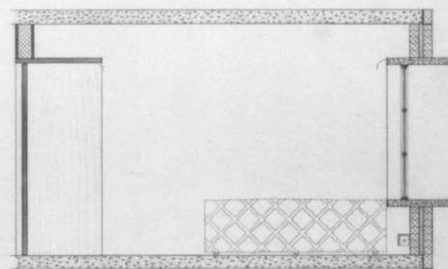
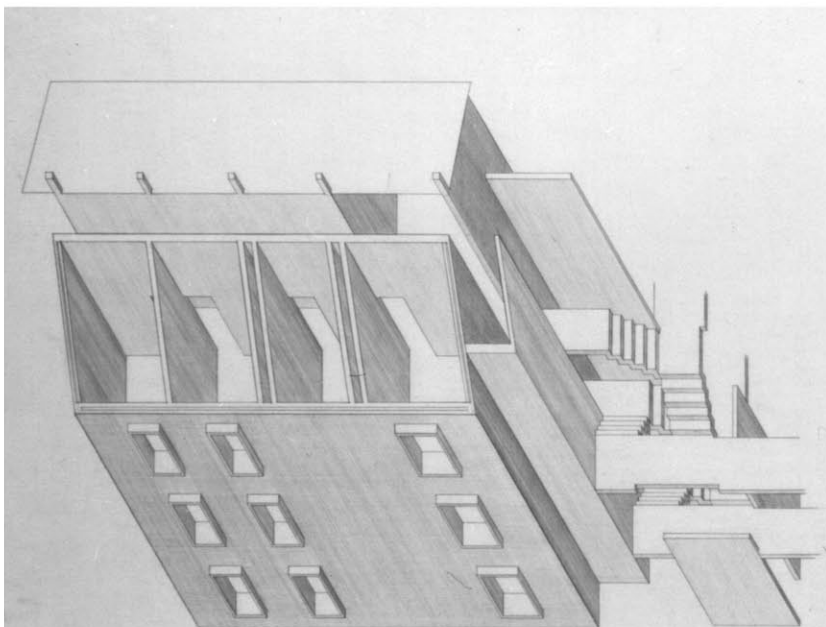
SITE PLAN

1/60

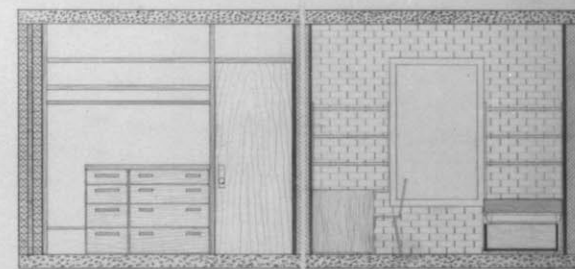
B. ARCH WINTER 1966

PETER THOMAS

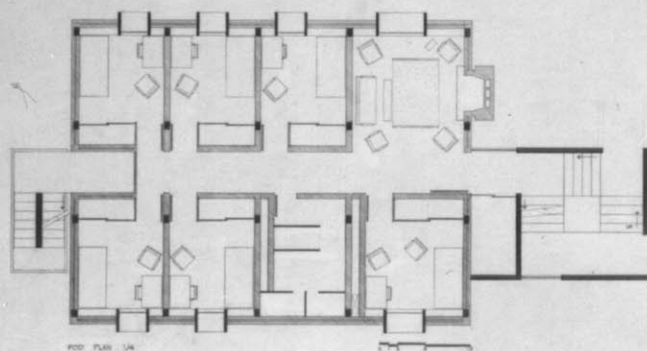




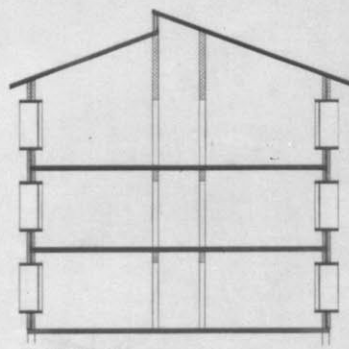
ROOM SECTION SH



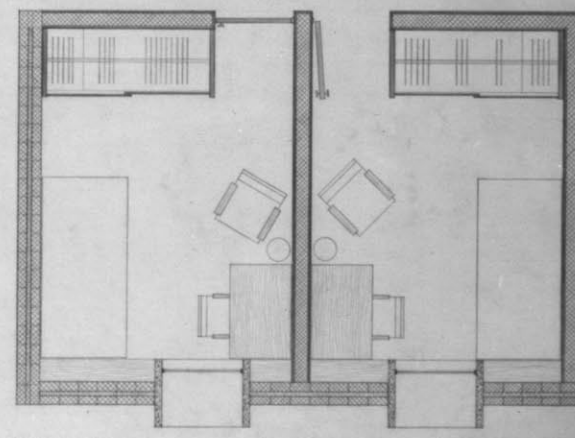
ROOM SECTION SH



POD PLAN SH



ROOM SECTION SH



ROOM PLAN SH

